M. A. R. 57 (Rule 116)
Measurement Book

No. B 426662

Serial No. 1st and final Bill

Name of Work ..... From ..... To .....

Name of Contractor of nature of Agency M/s Sathya Constructions, # 600 Down Bazar Road

Date of commencement of work 15.05.2020 Yelahanka Bangalore- 560064

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Name of works :	Package.2 includes 3 works.					R.100.00 Lakh
	Estimated cost :	Rs 100.00 Lakh					
	JMB.No	= 006-18-000031, 006-18-000033,					006-18-000034.
	Work order No	= BBMP/EE/BTP/120/395, 396 & 399,					/2017-18
	Date of Commencement						Dh

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	
	Date of completion :	~~29.01.2020~~			15.05.2020		
(1)	Earth work Excavation by manual means in ordinary soil, involving an average horizontal throw upto 2m and an average lift upto 0.50 m, Excavated surface levelled and sides neatly dressed, the disposed Earth to be levelled neatly after breaking clods complete as per specifications,						
	Qty vide .E. Bill pre-measurement						
	P.No. (1) Lt no. (1)				758.40 m³ @	186.92/ 201.67	14 15
27	Removing and Refixing stone slabs of chaas				and packing in cyl.		

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M. A. R. 57 (Rule 116)
Measurement Book

No. B 426663

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
		Qty vide	E. Bill.	p. no. (1) & (2)			
		=	1925.97 m² @	~~80.56~~/m² 86.92			~~155140.03~~ 1,67,388.00
	3) Providing granite slabs of selected quality Rough dressed and fixed in cm 1:6 including finishing curing etc complete 7.50 cms. thick						
		Qty vide	E. Bill.	& no. (3)			
		p.no (1) =	695.48 y³ @ 694.80	~~696.75~~/y³ 718.20			~~462514.46~~ 499494.00

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MEASUREMENT BOOK

M. A. R. 57 (Rule 116)
Measurement Book

No. B 426664

ial No. .....
ne of Work ..... From..... To.....
ne of Contractor of nature of Agency .....
e of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(4)	Providing and laying in position plain cement concrete of mix 1:3:6 with ordinary cement @ 220 kgs per 40 cum and down size graded granite metal Coarse aggregate @ 0.892 y^3 and fine aggregate @ 0.465 y^3, machine mixed concrete laid in layers not exceeding 150 mm thick well compacted, in final including curing						
					Qty vide E.Bill pno. (1)		
					Item no. (4) =	280.0 y^3 @ 5348.76 / 5770.78	(14497.77 / 16162.22)
5)	Providing and removing centering, shuttering, struting, propping etc and removal of form work for finishing, footings, basement						

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
	2	3	4	5	6	7	8
	columns for mass Concrete, including cost of all materials, labours, complete as per specifications.						
					Qty vide E.Bill. pre measurements		
					Item no. (5) p.no (2) - 60.60 y^3 @ 2447.88 / 264.18 y^3		14397.77 @ 16009.00
					4th = 58.80 y^3		
6)	Providing and removing centering, shuttering, struting, propping etc and removal of form work for vertical surfaces such as Walls of any thickness, including attached pilasters, buttresses, plinth, string courses cost of all materials, labour complete as						

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Per specifications.	Qty as per B.B.11. pre-measurements					
		At No. (6)	P.No. (7)	= 484.80 y^2 @ 310-58/y^2 335.08			150564.72 & 122447.10
(7)	Providing of layering cement Concrete M-20 mix and using 20mm and down 8.2c granite Coarse aggregate and fine aggregate of RMC M-20 for Rec Works, Laid in 150mm, thick layers and well Compacted, Vibrating, curing for Raft foundation, columns, walls and Retaining Beam, With all lead at Lift etc complete as per specifications.						

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M. A. R. 57 (Rule 116)
Measurement Book

No. B 426665

Serial No. .....
Name of Work ..... From..... To.....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
	2	3	4	5	6	7	8
		Qty as per B.B.11.			At No. (7)		
		P.No (2)		= 63 to 72 y^2 @ 672.32			396465.30 & 4,27,811.10
	8) Providing TMT steel Fe-500 reinforcements for RCC works including straighting, cutting, bending, hooking, placing in position, lapping and or welding wherever required, tying with binding wire and anchoring to the adjoining members neatly Complete as per design, cutting materials, labour, transport						

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MEASUREMENT BOOK

Date	Full description, etc. of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	roadway Complete as per specification.						
	qty as d/s & B.o.11. ## no (5) p.no (3)						
	= 2 Nos 7mm. @ 73769.00/m³						
	79505.44						
9)	Providing and laying RCC precast cover slab of 250 mm thick						
	for drain in C.C M.20 using graded granite jelly 20mm						
	and down size and with steel reinforcement, including dry						
	work, lift charges, curing of Concrete finished surface						
	on both sides Complete as per drawing and the direction						
	of Engineer in Charge.						
	Qty as d/s. B.o.11. ## no (4)						
	p.no (3) = 2520 m² @ 57219/m²						
	57236.17						

M. A. R. 57 (Rule 116)
Measurement Book

No. B 426666

Serial No. .....
Name of Work ..... From ..... To .....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Date	Full description, etc. of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
	2	3	4	5	6	7	8
10)	Excavation for Road works in dull soil by hydraulic Excavator						
	of 0.90 m³ bucket capacity including cutting and loading in						
	tippers, trimming bottom and sides, slopes in accordance						
	with required width, lines, grades and cross-sections, and						
	transporting to embankment location complete as per						
	specifications						
	Qty as d/s B.o.11. ## no (10) p.no (5)						
	= 1081.68 m³ @ Rs 148.76/m³						
	160.50						

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(11)	Providing and laying, spreading and compacting graded stone aggregates to wet mix macadam specifications including premixing the material with water at one in mechanical mix plants Conveying of mixed material by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and Compacting with Vibratory roller to achieve the desired density, Complete as per specifications.						
		Qty vide	E.Bill.	# no (11)			
		P.no. 2	415.59	m^3 @ 1768.08		$/m^3$ 1707.58	1,618,834. 1764856.00

M. A. R. 57 (Rule 116)
Measurement Book

No. B 426667

al No. .....
ne of Work ..... From..... To.....
ne of Contractor of nature of Agency .....
e of commencement of work .....

te	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
	2	3	4	5	6	7	8
	12) Providing and applying primer coat with SS bitumen Emulsion on prepared surface of granular Base / Sub-base including cleaning the Road surface and spraying primer at the rate of 0.6 kg/m² using mechanical means Complete as per specifications.						
		Qty vide	E.Bill.	P.no.		# no (12)	
		=	3874.884	@ 29.68/42		32.02	115000.50 / 124068.00
	13) Cleaning the existing	black topped	surface	with	brooms		

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MEASUREMENT BOOK

Date	Full description, etc. of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	
	Right brushes, and thoroughly dusty with old gunny bags and or compressed air to Receive bituminous treatment including cartage all materials, labour, hiring of machinery complete as per specification.						
	9th side F.B.M. p.no. #no 17					2705.00	
	= 8550 m² @ 3+0/m² 343					2917.50	
14)	providing and applying tack coat at 1kg/10 sq.m. using RS/120 grade bitumen (VG-10) on prepared surface applied @ 2.5kg/m², heating bitumen in boiler fitted with spray bar including cartage all materials, labour, hiring of machineries etc complete..						

M. A. R. 57 (Rule 116)
Measurement Book

No. B 426668

...al No. .....
...e of Work ..... From..... To.....
...e of Contractor of nature of Agency .....
... of commencement of work .....

e	Full description, etc. of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
	2	3	4	5	6	7	8
			9th side	F.B.M.	p.no. (5)	#no (14)	
			= 4885.0m² @	13.92/m².	Rs.		62137.20 + 67022.20
15)	providing and laying dense graded bituminous mixing using crushed aggregates of approved grading, premixed with VG-30 grade bitumen binder at temperature 160°C hot mix to work site, laying to the required grade, level and alignment. Rolling with smooth wheeled vibratory roller tandem-Roller to achieve the desired compaction on prepared						

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Specification.						
		Qty vide E.B.No.				Ht no. (13) page (5)	
		= 8.00 m³				@ 8013-60/m² 7054-28 7591.44	59644-43 60,732.00
17)	Providing and laying of hot applied thermoplastic (Compound) 2.50 mm thick including reflectorising glass beads at 200 gm per sqm area, thickness of 2.50 mm is Exclusive of surface applied glass beads as per IRC-35, the finished surface to be level uniform and free from streaks and holes complete.						

M. A. R. 57 (Rule 116)
Measurement Book

No. B 426669

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
	2	3	4	5	6	7	8
		Qty vide E.Bill. p.no (2)				Ht no (17)	
		= 170.50 m²				@ 5-42-72/m² 585.54	9-253-76 99834.57
18)	Providing and constructing approach slope stone masonry in foundation cement mortar 1:6, stone coursed dressed in courses not less than 20cm high. bond stones at 2m apart in each course including cost of material, labour & curing complete as per specification.						
		Qty. vide E.Bill. p.no				(8)	59516-83 64356.00
		Ht no (18) = 13.41 m³				@ 4838-32/m³ 4788.40	

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
19)	Providing & flush pointing to square Rubble, Coarse of uncoursed stone masonry with CM 1:3, 20mm deep after raking joints to depth of 20mm nicely lining including cutting, materials, labour, curing complete as per specification.						
						qty as per E. Bill item no. (19)	
						P.no (6) 22.40 @ ~~102.82~~ 110.93/m²	Rs. 2485.10
20)	Providing and laying in position plain cement concrete of mix 1:2:4 with cement 240 kgs per cum with 20mm nominal down size graded granite metal	Coarse aggregate @ 0.87 m³ per					

M. A. R. 57 (Rule 116)
Measurement Book

No. B 426670

al No. .....
ne of Work ..... From..... To.....
ne of Contractor of nature of Agency .....
e of commencement of work .....

e	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
	2	3	4	5	6	7	8
	fine aggregate @ 0.45 m³, machine mixed concrete laid in layers not exceeding 150mm thick, well compacted in foundation and plinth including curing, all materials, labour, hiring machinery complete as per specifications.						
						qty as per E. Bill. p.no. (7)	
						* no (28) 1.68 m³ @ ~~3267.40~~ 9222.57/m³	~~9889.32~~ 15454.00
21)	Providing and laying precast cover slabs 100mm thick						

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	
	of drain in CM M.20 and down size with a steel reinforcement including formwork, bar chair & curing and concrete finished duplex on both sides etc complete as per drawing and the directions of Engineer-in-charge of work.	using graded granite jelly 20m					
		qty vide R Bill, Item no (21)					
		P.no (21) =	181.80	@ 1960.3%			
22)	Cement concrete pavements. Cement concrete pavement, thickness as per design, over a	Consist of M. reinforced plain					

M. A. R. 57 (Rule 116)
Measurement Book

No. B 426671

...al No. .....
...e of Work ..... From..... To.....
...e of Contractor of nature of Agency .....
...e of commencement of work .....

e	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
	2	3	4	5	6	7	8
	Prepared sub-base using ope cements or any other type as per clause 10.3.2.2. design mix M.20 M.30 with 250mm end down size graded granite metal Coarse aggregate and fine aggregate with superplasticizer @ 3% or confirming to 2386(P3-1963-Reaffirmed-2002), mixed in a concrete mixer of suitable type capacity and appropriate weight batches as per approved mix design and laid in approved thickness from work. Spreading in						

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MEASUREMENT BOOK

M. A. R. 57 (Rule 116)
Measurement Book

No. B 426672

Serial No. .....
Name of Work ..... From..... To.....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Concrete with shovels, rodded, compacted using needle vibrator and plate vibrators and finished in a continuous operations including provision of Contraction, Expansion etc complete as per Specifications.						
		Qty vide M. No. (22) page (7)				1050524	
		E. Bill. = 168.95 m^3 @ 6217.96/m^3 6768.56				1,134,417	
23)	Vacuum de-watering mat and Compaction with dia plaster clubbed with floating disc, including cost of generator, diesel vibrators, power plaster, blades and mechanical screed						

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
	2	3	4	5	6	7	8
	disc etc complete with all tools and lifts.						
		Qty vide E. Bill. page no.				M. No. (13)	
		= 1689.5 m^2 @ 5.40/m^2 102.93				Rs.	1611.92+12 & 17,055.00
24)	Form work Excavation for foundation of structures as per drawing and Technical specifications, including earthy and, Cost of shoring and bracing, removal of stones and other deleterious material Complete as per specifications						
		Qty vide E. Bill. page no. (5)				M. No. (14)	
		= 74.24 m^3 @ 250.56/m^3				Rs.	17403.41 & 18453.00

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
25)	Providg and filling in foundations with granite/trap broken metal 100 mm and down size, with approved soil including hand packing, ramming, watering, including costg all materials, and labour with all lead and lift complete as per specifications						
						any side R.B.11. ℍ no (25)	
						P. no (8) = 13.92 m³ e ~~22[illegible]0.84~~ 2417.64/y³ B/w	3[illegible]/c 3365/-
26)	plain/Reinforced cement concrete M. 15 with OPC cement e 290 kgs with 40mm and down size graded granite metal Coarse aggregate 0.8 m³ and fine aggregate e 0.36 m³ upon foundation complete as per drawing and Technical						

M. A. R. 57 (Rule 116)
Measurement Book

No. B 426673

Name of Work ..... From ..... To .....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
	2	3	4	5	6	7	8
	Specifications.						
		any side		E-Bill	P. no. 9 ℍ (24)		
		=	5.52	m³ e ~~6[illegible]~~ 6192.96/y³		b	~~33218.04/-~~ 35839.-
27)	Diversion of water course by providg cofferdams, or bunds or islands as may be necessary for piers and abutments foundn, bailing out or pumping water during excavation and until completion are complete below 1.50 mts deep upto and including 3m depth						

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
		Qty vide	P. Bill.	No. (27)		Page No	
		= 21		m³ @ 349.80		Rs/m³	
28)	Plain / Reinforced cement concrete in open foundation with OPC cement design mix M-35 @ 390 kgs with 20mm and down size graded granite metal coarse aggregate @ 0.68 m³ and fine aggregate @ 0.45 m³ with superplasticisers @ 3% by weight of cement conforming to IS-9103-1999 - Re-approved 2008, Cone-II with Batching plant, Transit mixer and Concrete pump machine.						
		Qty vide	P. Bill.	No. (28)		Page No	
		= 12.75		m³ @ 6838.66 7377.19		Rs/m³ 93911.00	

M. A. R. 57 (Rule 116)
Measurement Book

No. B 426674

Serial No. .....
Name of Work ..... From ..... To .....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
	Number	Length	Breadth	Depth		
2	3	4	5	6	7	8
29) Design mix M-35 with OPC cement @ 390 kgs with 20mm and down size graded granite metal Coarse aggregate @ 0.68 m³ and fine aggregate @ 0.45 m³ with super plasticisers @ 3% conforming to IS-9103-1999 Re-approved.						
	Qty vide	P. Bill.	P. No. (10)	No. 29		
	= 21.30		m³ @ 7703.00 8310.73		Rs/m³	16-4-07493 179380.00
30) Plain / MS Bars reinforcement, supplying, filling and						

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	
	placing rung bars reinforcement in sub-structure complete as per drawing and technical specification.						
	as per Bill. p.no. (10) to (29)						
	= 3.72 Tonne @ ~~5800~~ 0.72/qtl						2680
						62673.43	233.49
						Total Rs.	
Item No. 18	Providing and laying bituminous concrete 30 mm compacted thickness of Hot VG-30 Bitumen grade 40-50 penetration using crushed aggregate of grading-II, premixed with bituminous binder @ 5.40% of mixed

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M. A. R. 57 (Rule 116)
Measurement Book

No. B 426675

No. .....

of Work ..... From..... To.....

of Contractor of nature of Agency .....

f commencement of work .....

Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
	Number	Length	Breadth	Depth		
2	3	4	5	6	7	8
Filler, transporting the hot mix to work site, laying with a Mechanical paver as finisher to the required grade level and alignment, Rolling with smooth wheeled vibratory Roller to achieve the desired Compaction as per morth specifications.						
						1634069.00
	qty vide	E. Bill p.no. (5) to (16)				
	=	189.00 m³		Rs 13,860/m³ @ 8645.87		15,44,538.35
Certificate						
Certified that the Contractor has work done					TOTAL	96,41,786.54

Satisfactorily

AE 15/05/2020

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